Area.	Scale.	Cost per sq. mi.	Remarks.
Massachusetts	1:62500	12.00	Includes no primary triangulation.
New Jersey	1:62500	6.50	Includes some triangulation.
Dist. of Columbia	1:62500	7.30	Includes no primary triangulation.
Appalachian region	1:125000	3.00	
Missouri, Kansas	1:125000	.90	Aided greatly by land surveys.
Texas	1:125000	2.00	
Arizona	1:250000	1.00	
California	1:125000	3.00	
Oregon	1:250000	3.40	
Montana	1:250000	2.00	

The sheets, as completed, are engraved upon copper. For each sheet, three copper plates are used. Upon one is engraved all the drainage; upon another, the contours, expressing the relief; and upon the third, all culture and lettering. In printing, colors are used, — blue for drainage, brown for contours, and black for culture and lettering. At the present date, 120 sheets have been engraved, comprising an area of 250,000 square miles, parts of which were surveyed by the Powell Survey of the Rocky Mountain Region, by the Wheeler Survey, and by the Northern Transcontinental Survey.

HENRY GANNETT.

AMERICAN NEUROLOGICAL ASSOCIATION.

THE thirteenth annual meeting of the American Neurological Association was held at Long Branch on July 20–22. The president of the meeting, Dr. L. C. Gray of Brooklyn, in his opening address, reviewed the position of the study of neurology in this country as compared with European lands. America does not at all suffer by the comparison. In the movement which in the past twenty-five years has raised neurology to a science, the names of American workers are prominent, and the number of societies specially devoted to its interest is as large as in any other country.

The recent advance in our knowledge of the functions and diseases of the central nervous system is hardly appreciated, except by such as can remember how things stood twenty years ago. A medical student, who, in 1869, would have stated that the stimulation of the cortex of the brain would give rise to definite movements, would certainly not have received his degree; while the student of 1870, who would not have mentioned this fact, would have stood in equal danger. The amount of research, with a variety of ingeniously devised methods, that has been expended since then upon the localization of function in the cortex of the brain, is an excellent example of the great activity now current in neurological problems. In every direction — in the improvement of apparatus for diagnostic purposes, in the application of therapeutic agencies, in the rational care of the insane — have there been rapid strides, demonstrating beyond a doubt the important function of a neurological association.

The number and quality of the papers presented gave evidence of the increasing attention which the study of nervous diseases is here gaining. Dr. B. Sachs gave an interesting account of a case of arrested cerebral development. It was that of a child with hereditary predisposition to insanity, who lived for two years without exhibiting any but the most rudimentary signs of intelligence. It was listless, inactive, never learned to speak, and in its last period became blind. On examining the brain, the surface appearance was noteworthy. The left island of Reil — a group of cortical matter specially related to the faculty of speech — was exposed. In a normal child it would have been folded inwards, and an abnormal deviation accounts for the failure to develop speech. Many of the fissures flowed together which normally should be separate, — a mark of low-type and undeveloped brains. A microscopic examination showed that the pyramidal cells of the cortex, whose function (in parts of the cortex) is specially connected with motion, were abnormal; their positions were reversed, the nucleus faded, and the processes poorly developed. Outside the cells the appearance was normal. Dr. Sachs considered that the case was one of pure arrested development, the brain having grown to a certain stage in the development, and then degenerative processes set in.

Dr. C. L. Dana recounted the remarkable history of a simple, chronic, neuræsthenic tremor in a certain family. This tremor is present in three generations, and has attacked forty-four members of the family. The original member thus affected has had the tremor for seventy years: he can momentarily control it, and any excitement increases its intensity, as well as affects the clearness of his speech. He is a watchmaker by profession, and very skilfully controls the shaking at the instant when his hand must be steady. The tremor ceases in sleep, and his walk and posture are normal. The hereditary history is unusually interesting. His grandfather was intemperate, his father insane, his nine children all have the tremor to a greater or less degree, and some are mentally peculiar. Seven of these children married and produced thirty-four children, all of whom have the same tremor, and the other peculiarities still remain. There are evidences that the tremor, though present, is dying out in the third generation. It is noteworthy that an adherence to Spiritualism is hereditary in the same family.

Dr. Gray called attention to the serious aspects of chorea. This disease is often treated less seriously than it merits. The majority of cases occur in children between eight and twelve years of age, and frequently the attacks are slight and readily outgrown. The cases which the physician should regard with greatest anxiety are those in which convulsions occur, in which there occur spasms of the respiratory apparatus, in which there is hysteria or cardiac or pulmonary weakness. The essential part of the treatment is complete rest, the exercising of the muscles having a hurtful influence.

Dr. Spitzka called attention to the severe injuries which the brain of dogs could undergo with impunity, and to the obliteration in vigorous animals of the injury done by needles forced into the brain. There are great individual differences between dogs in this respect, and a dog once operated upon seemed better able to endure a second operation. These experiments seemed to justify the piercing of the brain in surgical operations.

Dr. J. H. Lloyd cited a typical case in the peculiar borderland of insanity known as the 'insanity of doubt.' The patient has a morbid impulse to do things over and over again, for fear they are not done exactly right. She gets in and out of bed twenty times, until she does it just so. She sends her husband down at night to light and extinguish a gas-burner in a definite way, and cannot rest until it is properly accomplished; otherwise she is perfectly rational, recognizes the nature of her weakness, but cannot resist it.

A very valuable contribution was that by Dr. C. L. Dana, describing a case of anencephalis. An apparently normal, healthy child lived for two and one-half days: it cried very little, at times opened its eyes, and re-acted to reflex stimulation. On opening the skull the cerebrum was seen to be entirely absent, there being nothing above the corpora quadrigemina except a not well-developed thalamus. Such cases are rare, and are valuable for the light they shed on the connections between the spinal cord and the brain. The cerebrum being absent, all such systems of fibres as connect it with lower centres are absent. Prominent amongst these is the pyramidal tract, which conducts voluntary movements, and these were entirely absent. The sensory columns of the cord were intact, as were also the cerebellum and the cranial nerves, except, of course, the olfactory nerves. The value of such a case is the independent testimony it affords to the correctness of the sensory and motor fibre-systems as deduced by other methods.

Amongst the other papers read was one by Dr. Ott, urging on experimental evidence the existence of heat-centres in the spinal cord; by Dr. Dercum, describing two cases of chorea limited to one-half the body and accompanied by Bright's disease; by Dr. Spitzka, carefully delineating the symptoms of acute delirium; by Dr. Mills, aiming to ascertain a distinctive symptom between polio-myelitis and multiple neuritis; by Dr. Putnam, on a case of overgrowth of the skull bones; by Dr. Hun, on the symptoms accompanying a tumor of the pons; by Dr. Jacoby, urging the treatment of neuralgia by sprays of extreme cold; and by Dr. Kellogg, on the effect of baths in mental disease.

The limit of membership was increased to one hundred, and Dr. W. A. Hammond was elected an honorary member. The president for next year will be Dr. J. J. Putnam of Boston.